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2   1.   (Amended) A method for improving receive performance in a data network,

3   the method comprising:

4   receiving up to a plurality of indications denoting the start of frame transmission on a

5   corresponding plurality of communication links;

6   identifying that at least one of the received indications denote the start of a flow; and

7   dedicating a receive buffer from a plurality of receive buffers to receive all frames

8   associated with the identified flow.

1   2.   (Amended) The method of claim 1, wherein identifying the start of flow

2   includes analyzing information embedded within each of the received frames to determine

3   source and destination information associated with said frames.

1   3.   (Amended) The method of claim 1, further comprising determining whether

2   the identified flow requires preservation of transmission order.

1   4.   The method of claim 3, further comprising promoting frames of the received

2   flow in the order received, unless it is determined flow requires preservation of frame order.

1   5.   The method of claim 4, further comprising assigning a pointer value to each

2   frame of the identified flow corresponding to commencement of transmission, creating a list

3   of pointer values corresponding to transmission order if it is determined that the identified

4   flow requires preservation of transmission order.

1   6.   The method of claim 1, further comprising promoting the received frames

2   from the dedicated buffer in the order received, without regard to frame transmission order,

3   unless it is determined that the identified flow requires preservation of transmission order.

1   7.   The method of claim 6, further comprising determining whether the identified

2   flow requires preservation of transmission order by analyzing protocol identification

3   information embedded within the received frames.

1 8. The method of claim 1, wherein the buffer order does not correspond to the
2 order of frame transmission.

1 9. (Cancelled)

1 10. (Cancelled)

1 11. (Cancelled)

1 12. (Cancelled)

1 13. (Cancelled)

1 14. (Cancelled)

1 15. (Cancelled)

1 16. (Cancelled)

1 17. (Cancelled)

1 18. (Cancelled)

1 19. (Cancelled)

1 20. (Cancelled)

1 21. A medium having embodied thereon a program for processing by a network
2 device, the program comprising:
3 a module to receive an indication to denote commencement of a flow of frame
4 transmissions; and
5 a module to indicate at least one receive buffer to receive all frames associated with
6 the flow.

1   22.   The medium of claim 21, wherein the program further comprises a module to

2   promote frames of the received flow in the order received, unless it is determined flow

3   requires preservation of frame order.

1   23.   The medium of claim 21, wherein the program further comprises a module to

2   assign a pointer value to each frame of the identified flow corresponding to commencement

3   of transmission, creating a list of pointer values corresponding to transmission order if it is

4   determined that the identified flow requires preservation of transmission order.

1   24.   *(Cancelled)*

1   25.   (New) Adapted for a data network including a plurality of communication

2   links, a method comprising:

3   receiving at least one indication denoting a start of frame transmission on the

4   corresponding plurality of communication links;

5   identifying a received indication denotes commencement of a flow;

6   dedicating a buffer from a plurality of buffers to receive all frames associated with the

7   identified flow;

8   determining whether the identified flow requires preservation of frame transmission

9   order; and

10   relying on the received indications associated with each frame to preserve a state of

11   frame order transmission.

1   26.   (New) The method of claim 25, wherein identifying the start of flow includes

2   analyzing information embedded within each of the received frames to determine source and

3   destination information associated with said frames.

1   27.   (New) The method of claim 25 wherein the relying on the received

2   indications comprises promoting frames of the received flow in the order received, unless it

3   is determined flow requires preservation of frame transmission order.

1   28.   (New) The method of claim 25 wherein the relying on the received

2   indications comprises assigning a pointer value to each frame of the identified flow

3   corresponding to commencement of transmission, creating a list of pointer values

4   corresponding to transmission order if it is determined that the identified flow requires

5   preservation of frame transmission order.

1   29.   (New) The method of claim 28, further comprising promoting the received

2   frames from the dedicated buffer in the order received, without regard to frame transmission

3   order, unless it is determined that the identified flow requires preservation of frame

4   transmission order.

1   30.   (New) The method of claim 25, further comprising determining whether the

2   identified flow requires preservation of frame transmission order by analyzing protocol

3   identification information embedded within the received frames.

1   31.   (New) The method of claim 25, wherein the buffer order does not correspond

2   to the order of frame transmission.

1   32.   (New) A network device comprising:

2   means for receiving an indication to denote commencement of a flow of frame

3   transmissions; and

4   means for indicating at least one receive buffer to receive all frames associated with

5   the flow.

1   33.   (New) The network device of claim 32, further comprising a means for

2   promoting frames of the received flow in the order received, unless it is determined flow

3   requires preservation of frame order.

34.   (New) The network device of claim 32, further comprising means for assigning a

2   pointer value to each frame of the identified flow corresponding to commencement of

3   transmission, and creating a list of pointer values corresponding to transmission order if it is

4   determined that the identified flow requires preservation of transmission order.